The claimed invention is a real-time maintenance alert system for use in a heavy duty truck having an engine, and an engine controller having a communications data link. The system comprises a sensor, control logic, and a display device. The control logic is operative to produce an output signal at the data link in response to a real-time fault condition. In accordance with the claimed invention, the display device has memory and is configured to transmit and receive information over the data link. The display device processes the output signal and stores a fault condition status in the memory. The display device has an indicator operative to alert a user of the real-time fault condition.

Advantageously, in the claimed invention, one or more maintenance alert sensors produce an output signal that is processed by control logic in the engine controller. Because the claimed invention utilizes a communications data link of the engine controller, the claimed invention has many advantages over the prior art. Specifically, Applicant maintains that the prior art fails to describe or suggest the claimed display device having memory and configured to transmit and receive information over the data link, with the display device processing the output signal and storing a fault condition status in the memory, and having an indicator to alert a user of the real-time fault condition.

Regarding claims 1-4, Betts, Jr. et al. fails to describe or suggest a display device having a memory and configured to transmit and receive information over the engine controller data link. The Examiner has proposed to combine Betts, Jr. et al. with either Leon et al. or Weisman, II et al. Applicant believes that neither Leon et al. nor Weisman, II et al. provide the display device that is lacked by Betts, Jr. et al.

Regarding Leon et al., Leon et al. describes a programmable lock and security system. Leon et al. is not related to engine controllers, and does not describe or suggest a display device configured to transmit and receive information over the communications data link of an engine controller. Leon et al. is a lock and security system and is not in the field of Applicant's endeavor and is not reasonably pertinent to the particular problem to which Applicant was concerned and as such cannot be combined in the way proposed by the

Examiner with either Betts, Jr. et al. or any of the other references relied upon by the Examiner. MPEP 2141.01(a).

Regarding Weisman, II et al., Weisman, II et al. also fails to describe or suggest the claimed display device having memory and configured to transmit and receive information over the data link. The Examiner has directed Applicant's attention to display 60 and to interface 64. Applicant has carefully reviewed Weisman, II et al., and directs the Examiner's attention to Col. 3, ll. 29-53. As explained in Column 3, the display includes at least one illuminated indicator such as a check engine light. The display 60 is driven by the engine controller, but is not described as transmitting and receiving information over the data link as claimed by Applicant. Because Applicant claims an intelligent display device with memory and configured to transmit and receive information over the data link, Applicant maintains that the simple display 60 shown in Weisman, II et al. does not suggest the claimed invention. Further, the Examiner has pointed out programming interface 64. Programming interface 64 is selectively connected to the engine controller for modifying calibration variables. Programming interface 64 is not a display device for processing and storing a status of a sensor in memory as claimed by Applicant. Further, Applicant reminds the Examiner that the claimed invention is a real-time maintenance alert system. In contrast, programming interface 64 is not used as a real-time device, but rather is selectively connected to the controller to change calibration settings therein. On the other hand, the claimed invention is a maintenance alert system that is always connected as opposed to being operative only at specific instances, as is the programming interface 64.

With respect to Betts, Jr. et al. as applied to claims 1-4 and the remaining references as applied to claims 5-20 by the Examiner, Applicant maintains the positions taken in the previous reply that was filed in response to the first Office Action in this case. None of the primary references applied to claims 1-20 suggest the claimed display device. Further, Applicant believes that neither Leon et al. nor Weisman II, et al. provides the display device that is lacked by all of the other references relied upon by the Examiner. In addition, Applicant maintains the positions taken regarding patentability of many of the dependent claims in the previous reply.

In summary, Applicant respectfully requests that the Examiner reconsider this case and allow claims 1-20.

Respectfully submitted,

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